

REMARKS

Claims 1-8, 22-23, 25, and 61-74 are currently pending in this application. Claims 9-21, 24 and 26-60 were previously canceled without prejudice or disclaimer. Claims 1, 3, 6-8, 22-23, 63-64, 66-67 and 69-70 are amended herein. Claims 1-8, 22-23, 25, and 61-74 will remain pending on entry of the current amendments.

Support for the amended claims can be found throughout the specification as originally filed, *inter alia*, on page 3, line 25 extending to page 4, line 5; page 27, lines 4-6; on page 28, line 9 extending to page 29, line 13; and page 30, lines 1-12. Accordingly, Applicant submits that no new matter is introduced into the specification by way of the present amendments.

Amendments to the Specification

Applicant has amended the specification to update the cross-reference to related applications in accordance with the Examiner's invitation, thereby setting forth the priority claims of the instant application. Applicant respectfully notes that the cross-reference amendment provided herein identifies U.S. Patent application Ser. No. 09/307,787, filed May 10, 1999, now abandoned, as a divisional of U.S. Patent application Ser. No. 08/659,997, filed June 10, 1996. Although Applicant's original priority claim correctly identified and claimed the benefit of U.S. Patent application Ser. No. 09/307,787, Applicant's original priority claim erroneously characterized U.S. Patent application Ser. No. 09/307,787 as a continuation of U.S. Patent application Ser. No. 08/659,997. A review of the file contents of U.S. Patent application Ser. No. 09/307,787 reveals that this application is a divisional application, and therefore Applicant has identified this application as a divisional application in the cross-reference to related applications. Applicant submits that the cross-reference recited herein accurately characterizes the nature of U.S. Patent application Ser. No. 09/307,787.

Rejections

Rejections under 35 U.S.C. § 112, second paragraph

Claims 1-8, 22-23, 25 and 61-74 were rejected under 35 U.S.C. § 112, 2nd paragraph as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. The Examiner has kindly suggested numerous claim amendments sufficient to overcome the rejection of claim 1-8, 22-23, 25 and 61-74 under 35 U.S.C. § 112, 2nd paragraph. Applicant greatly appreciates the Examiner's careful analysis of

the claims, as well as the suggested claim amendments for overcoming the rejection. Applicant has utilized many of the Examiner's suggested claim amendments in responding.

Applicant has amended claims 1, 3, 6-8, 22-23, 63-64, 66-67 and 69-70 to address the Examiner's rejection of claims 1-8, 22-23, 25 and 61-74 under 35 U.S.C. § 112, 2nd paragraph, and believes that the Examiner's concerns have been addressed. Regarding the rejection of claim 66 as allegedly indefinite in the recitation of "M", Applicant submits that the recitation of "M" references molarity, or molar concentration, which is a common unit for expressing the concentration of solutions that one of skill in the art would understand. Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-8, 22-23, 25 and 61-74 under 35 U.S.C. § 112, 2nd paragraph, as allegedly indefinite for failing to particularly point out and distinctly claims the subject matter regarded as the invention.

Double Patenting

Claims 1-8, 22-23, 25 and 61-74 were rejected under the judicially created doctrine of obviousness-type double patenting as allegedly unpatentable over claims 22-28 of U.S. Patent No. 6,127,181. Applicant respectfully disagrees and traverses this rejection.

Applicant respectfully directs the Examiner's attention to the restriction requirement issued July 22, 1997, in U.S. Patent Application No. 08/659,997, filed June 07, 1996, now U.S. Patent 6,127,181. In this restriction requirement, claims 1-60 were restricted into the following 5 groups:

I. Claims 1-21, drawn to a first method, recovering cryopreserved plant cells comprising thawing the cells, incubating with an ethylene inhibitor and recovering the cells classified in class 435, subclass 420, 435/420-430.1 for example.

II. Claims 22-27, drawn to a second method, recovering cryopreserved plant cells comprising thawing the cells, incubating with a divalent cation, and recovering the cells, classified in class 435, subclass 420, 435/410-419 for example.

III. Claims 28-52, drawn to a third method, cryopreserving plant cells comprising treating the cell with a divalent cation, loading the cell with a cryoprotectant and vitrifying the cell, classified in class 435, subclass 1.3, 435/420-430.1 for example.

IV. Claims 53-55, drawn to a forth [sic] method, cryopreserving plant cells comprising treating the cell with an ethylene inhibitor, loading the cell with a cryoprotectant and vitrifying the cell, classified in class 435, subclass 1.3, 435/420-430.1 for example.

V. Claims 56-60, drawn to a fifth method, cryopreserving plant cells comprising shocking the cell with heat, and vitrifying the cell, classified in class 435, subclass 1.3, 435/420-430.1 for example.

Applicant notes that issued claims 22-24 of U.S. Patent 6,127,181 were originally subject to the restriction requirement, and correspond to restricted claims 50-52 of elected group III. Issued claims 25-28 of U.S. Patent 6,127,181 were added after restriction, and are directed to methods of cryopreserving plant cells. Claims 1-8, 22-23, 25 and 61-74 of the present application are drawn to methods of recovering cryopreserved cells encompassed by claims 1-27 corresponding to groups I and II of the restriction requirement of July 22, 1997 of U.S. Patent 6,127,181. In the restriction requirement of July 22, it is stated that the methods of groups I and II are distinct from the methods of groups III-V. The claims corresponding to groups I and II (claims 1-27) were withdrawn from consideration in a subsequent office action mailed November 13, 1997. The Patent Office is permitted to require restriction of the claims of an application to one elected invention in accordance with 35 U.S.C. § 121. However, if the non-elected "invention is made the subject of a divisional application ... [a] patent issuing on an application with respect to which a requirement for restriction ... has been made ... shall not be used as a reference ... against a divisional application". 35 U.S.C. § 121. Therefore, Applicant submits that U.S. Patent 6,127,181 is not available as a reference against the currently pending claims, and Applicant respectfully requests withdrawal of the rejection of claims 1-8, 22-23, 25 and 61-74 under the judicially created doctrine of obviousness-type double patenting.

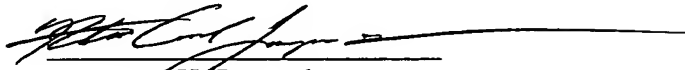
Conclusion

Applicant believes that, upon incorporation of the amendment and consideration of the above remarks, this application will be in condition for allowance. Early notification of a favorable consideration is respectfully requested.

Respectfully submitted,

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